



## CEILING INCREASE ACTION MEMORANDUM

DATE: 9/27/91

SUBJECT: Request for a Ceiling Increase and Exemption from the 12-Month Statutory Limit for the Drexler-RAMCOR, Orting, WA ACTION MEMORANDUM

Site/Spill-ID: TGB10N5J7

Category of Removal: Time Critical

FROM: Chris D. Field, OSC *Chris D. Field*

TO: Charles E. Findley, Director  
Hazardous Waste Division

THRU: Philip G. Millam, Chief, *Philip G. Millam*  
Superfund Branch

James M. Everts, Chief, *James M. Everts*  
Superfund Response and Investigations Section

### I. PURPOSE

The purpose of this Action Memorandum is to request and document approval of an exemption from the 12-month statutory limitation and a Ceiling Increase of \$300,000 for a new total of \$1,988,000, to resume and complete the Drexler-RAMCOR removal action. The site is located in a rural area approximately 3 miles south of Orting, at 21716 Orville Road East, Orting, WA.

### II. SITE CONDITIONS AND BACKGROUND

#### A. Removal Site Evaluation

The Original Action Memorandum was approved on September 26, 1990, and the removal action commenced on site on November 13, 1990. A ceiling increase of \$775,000 was approved of on June 28, 1991 for a new total of \$1,688,500.

Originally built as an oil recycling facility, oil was stored and blended on site in preparation for resale. Of twenty six tanks on site, ten were contained inside a concrete containment structure (concrete berm) and sixteen others were spread over an approximate 3 acre area. The tanks, ranging in size from 4,000-15,000 gallons included; underground storage tanks stood on end; tractor-trailer tanks; railroad tanker cars; and oil delivery trucks. None of the

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tanks were secured. The vertical tanks were unstable and at risk of tipping over. There was abundant evidence of leaking tanks and frequent spills. See original Action Memorandum (attached).

## **B. Others Actions to Date**

### **1. Previous Actions**

The first phase of the removal action, November 1990 - January 1991, consisted of stabilizing the site by consolidation of the contaminated liquids from 26 on-site tanks and 70+ drums. The concrete containment area was decontaminated and covered to prevent the accumulation and contamination of any additional rainwater. Because fill was used in the past to cover contaminated soils, a series of holes were bored to sample and characterize subsurface soil and groundwater contamination. Three areas of soil contamination were identified based on this data and information on past dumping practices. Based on this same information, it was estimated that the volume of contaminated soil requiring removal would not exceed 300 tons, and funding was requested accordingly.

During phase two of the removal, July - August 1991, EPA contractors arranged for treatment and disposal of 200 drums of contaminated sludge, 20,000 gallons of contaminated oil and 35,000 gallons of contaminated water. Excavation was started in the three areas where contaminated soil had been identified. Cleanup levels were adopted from the State Model Toxics Control Act (MTCA).

It became apparent that the dumping was far more extensive than estimated. The first excavation area produced 700 tons of contaminated soil. It was transported to a hazardous waste landfill due to elevated concentrations of chlorinated solvents. The source of the contamination was from contaminated liquid (waste oil and solvents) which were dumped in a small depressed area on the east side of the site. The contamination flowed vertically down to the water table, encountered at about 12 feet below ground surface (bgs), then flowed horizontally down-gradient along the top of the water table, north towards the Puyallup River. Tests showed that sediment concentrations in the saturated zone to be below the clean up levels. This would support the assumption that water levels were near the low point of seasonal fluctuation and the contamination had not significantly penetrated the saturated zone.

The second identified area of contamination was also drastically more contaminated than surface soils had indicated. In addition to years of dumping waste oil and solvents, a pvc pipe was uncovered during excavation that led from a hole in the concrete containment sump to this area approximately 70 feet southeast of the concrete sump. It was apparently an attempt to channel contaminated liquid leaking from the sump, away from the open, visible area. The contamination followed the same pattern of flowing down to the saturated zone and then down-gradient (northeast) on the water table.

To date, EPA contractors have stockpiled 2500 tons of contaminated soil, excavated from this southeast area and from around the concrete containment sump area as well. There was contaminated soil around the entire perimeter of the concrete containment pad. Closer inspection of the concrete pad, walls and sump showed that they were poured separately, and allowed extensive leakage over the years.

## 2. Current Conditions

The five remaining, on-site tanks are empty and have been staged on the southwest corner of the site, awaiting the scrapper. There is approximately 2500 tons of contaminated soil staged on site awaiting treatment/disposal. There are a series of open trenches, exposing contaminated groundwater, that will be backfilled following cleanup of the water table and confirmation testing of sediments in the saturated zone.

### III. THREATS TO PUBLIC HEALTH OR WELFARE OR THE ENVIRONMENT, AND STATUTORY AND REGULATORY AUTHORITIES

#### A. Threats to Public Health or Welfare.

Several persons (including at least 2 children) reside in trailers in close proximity to the former site and the children have been observed on site. These residents obtain water for domestic use from a shallow well located approximately 500 feet up-gradient (south) of the site. The well draws from a saturated zone within 8 feet of ground surface. Toluene has been detected in one residential water sample collected by EPA, although below the safe drinking water standards.

EPA soil sampling results show two areas where volatile analytes exceed the cleanup levels for residential soils, specified in the Washington State Model Toxics Control Act (MTCA), State ARAR. The analytes and respective concentrations are:

Table 1

Analyte	Concentration (ppm)	MTCA Cleanup Level (ppm)
=====	=====	=====
xylenes	82	20
1,1,1 trichloroethane	70	20
benzene	29	.5
methylene chloride	34	.5
toluene	230	40
ethyl benzene	28	20

To confirm the Extent of Contamination (EOC) results the samples were also analyzed for Total Petroleum Hydrocarbons (TPH). The results showed TPH levels exceeding the State MTCA criteria (200 ppm) in the same two areas, showing a maximum concentration

of 35,000 ppm. One location is the southeast corner of the concrete berm where a hole was discovered in the sump wall, below the level of standing liquids. The other location is a small depressed area approximately 100 feet due east of the concrete berm. This appears to be an area where substantial dumping took place.

Common uses of the above volatile organic compounds include solvent and degreasing applications, and some are constituents of automobile and aviation fuels. Methylene chloride and benzene are listed as carcinogens. Many of these compounds present similar potential health effects ie., irritation of eyes, skin and upper respiratory track and prolonged exposure causing potential damage to kidneys, liver, lungs and central nervous system.

Based on the criteria set forth in the State MTCA these contaminants found to exceed the State cleanup levels, pose an unacceptable risk in the event of public exposure.

#### **B. Threats to the Environment**

The facility is located on the Puyallup River Flood Plain within 500 feet of the current river channel. Although much of the area has been filled with gravel, the entire area is wetland. Surface drainage tends to the north to a pond, which is also spring fed.

EPA surface water analysis has shown some contamination of the pond to the north of the site. Soil contaminants may be transported through leaching to groundwater and erosion to surface waters. Area geological observations would indicate a susceptibility to both of these phenomenon. Vegetation is dead or non-existent in both of the contaminated areas identified above. Continued leaching and migration of the contaminants of concern could further damage the sensitive wetland ecosystem.

#### **IV. ENDANGERMENT DETERMINATION**

Actual or threatened releases of hazardous substances from this site, if not addressed by implementing the response action selected in this Action Memorandum, may present an imminent and substantial endangerment to public health, welfare, or the environment.

#### **V. EXEMPTION FROM STATUTORY LIMITS**

##### **A. Emergency Exemption**

- 1. There is an immediate risk to public health, welfare or the environment.** There is presently a greater risk of exposure to soils contaminated with waste oil and solvents because 2500 tons of contaminated soil has been excavated and stockpiled on site. These soils contain petroleum hydrocarbon contamination at concentrations as high as 70,000 ppm and concentrations of volatile

organic and halogenated solvents as shown in table 1, above. Two fundamental concerns of the present conditions are: 1. Public exposure to the stockpiled soils and; 2. Rain carrying contaminated leachate from the soil directly to area surface waters. There are also 3 open trenches on-site where additional work is still required to complete removal of all contaminated soils.

2. Continued response actions are immediately required to prevent, limit or mitigate an emergency. It is critical that the remaining contaminated soil and sediment be removed before the groundwater table begins to rise. It is equally as important to move ahead with treatment/disposal plans for the 2500 tons of stockpiled soil to minimize the potential for public or environmental exposure.

3. Assistance will not otherwise be provided on a timely basis. State and Local agencies do not have the capacity to manage the cleanup operation, although they shared EPA concern that the site had to be cleaned up. A thorough civil investigation has determined that none of the PRPs, including the property owner, facility operators, etc., have the financial ability to conduct the cleanup.

## **VI. PROPOSED ACTIONS AND ESTIMATED COST**

### **A. Proposed Actions and Estimated Costs**

1. Proposed Action: EPA contractors will re-mobilize immediately to complete removal of contaminated soil and sediment at the present level of the groundwater table. This will be added to the stockpiles awaiting treatment.

The results of an EPA treatability study show that the contamination present can be effectively volatilized off the soils through on-site, thermal treatment in a thermal desorption unit. This will allow the subsequent backfilling of excavated areas with those treated soils. A detailed cost comparison between on-site treatment of the soils and disposal at a hazardous waste landfill shows the treatment to be marginally less expensive. However, a equally important consideration that is difficult to quantify monetarily is the fact that 2500 tons of native soil will be treated and remain on site rather than being landfilled.

Landfilling the contaminated soil was considered and ruled out due to the viability of the thermal desorption technology for this waste. In addition to on-site treatment being more consistent with the EPAs progressive agenda in cleaning up the environment, it is expected to be less expensive compared to the landfilling option.

2. Long Term Consistency: This site is not on the NPL and no further action will be required as the proposed removal action will complete the EPA cleanup.

3. **Technology Comparison:** Thermal desorption was selected over other technologies considered primarily, on the basis of a proven and successful track record within the EPA, and also the relative short duration required to implement the technology.

4. **ARARs:** The proposed exemption will allow the completion of the clean up to State cleanup criteria (State ARAR). All State and Federal ARARs will be complied with where possible.

5. **Project Schedule:**

Oct - Nov '91: Competitive bidding process for the treatment unit is expected to take one to two months.

Dec '91: One month for mobilization, preparation and testing.

Jan - Feb '92: On-site treatment of contaminated soils and demobilization

A. **Project Ceiling Increase Estimate**

	<u>Current Ceiling</u>	<u>Costs to Date</u>	<u>Proposed Ceiling</u>
Extramural Costs			
ERCS	1,275,000	1,160,500	1,651,000
Other Extramural			
TAT	229,000	201,000	229,000
Intramural Costs			
EPA	108,000	50,000	108,000
Contingencies	76,500		
Tot Proj Ceiling	1,688,000	1,411,000	1,988,000

Total Proposed increase = \$ 300,000

VII. **EXPECTED CHANGE IN THE SITUATION SHOULD ACTION BE DELAYED OR NOT TAKEN**

1. Delayed action will result in increased public health risks to the residents living adjacent to the site. Also, with the contaminated soil stockpiled on-site, the area surface waters are vulnerable to contaminated run-off from those piles.

VIII. **OUTSTANDING POLICY ISSUES**

1. None

IX. ENFORCEMENT

1. An exhaustive search has not produced any financially viable PRPs.

X. RECOMMENDATION

Site conditions continue to meet the NCP section 300.415(b)(2) criteria for a removal, and I recommend approval of the proposed increase of \$300,000. The total project ceiling if approved will be \$1,988,000, of which 100% will be funded from the regional allowance. I also recommend approval of an exemption from the 12-month limit to allow continued removal response.

APPROVAL:

Charles Fuly

DATE:

9/30/91

DISAPPROVAL:

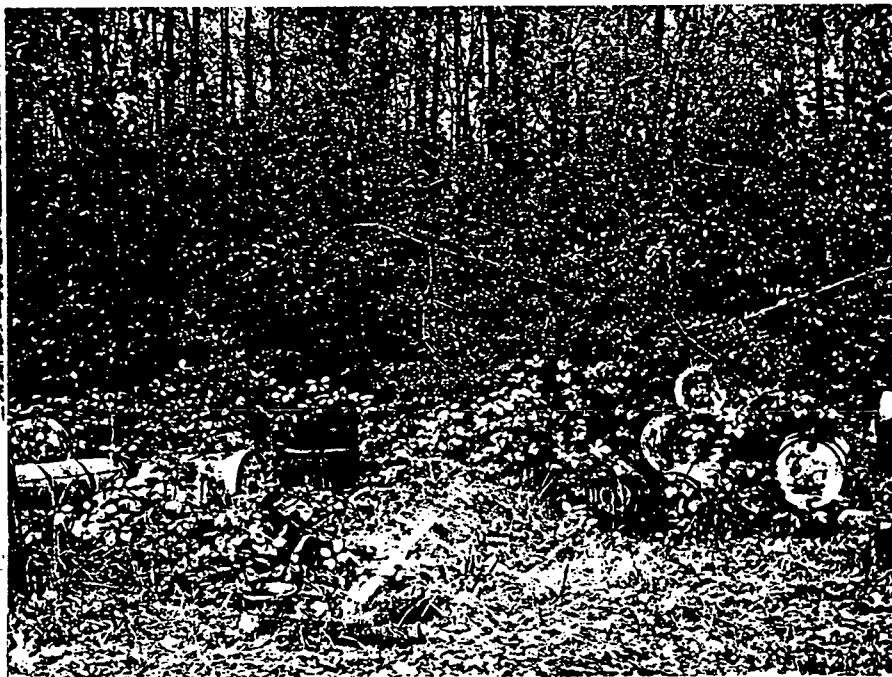
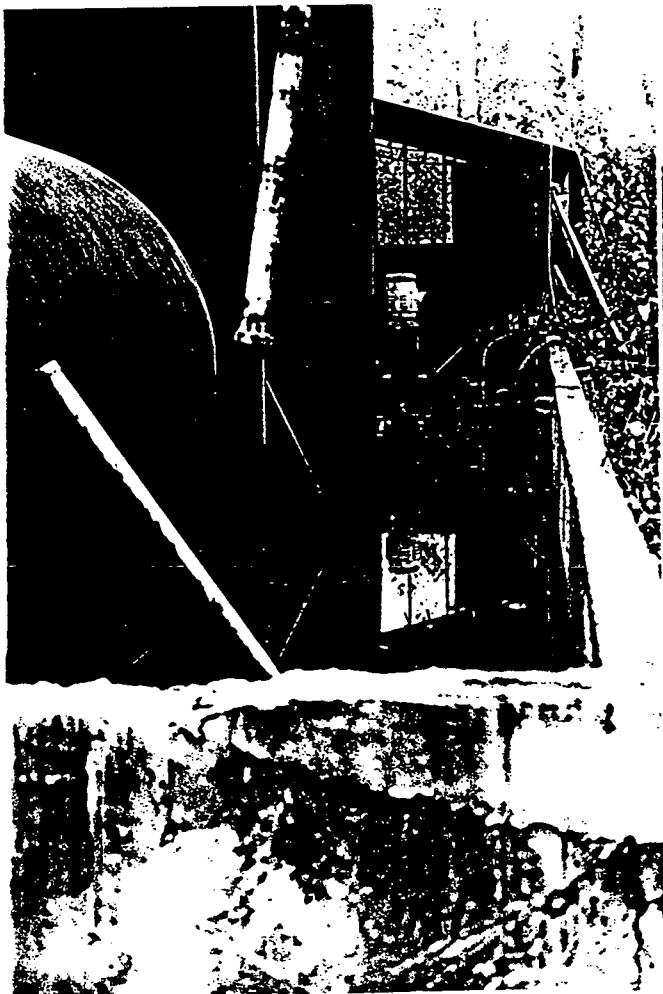
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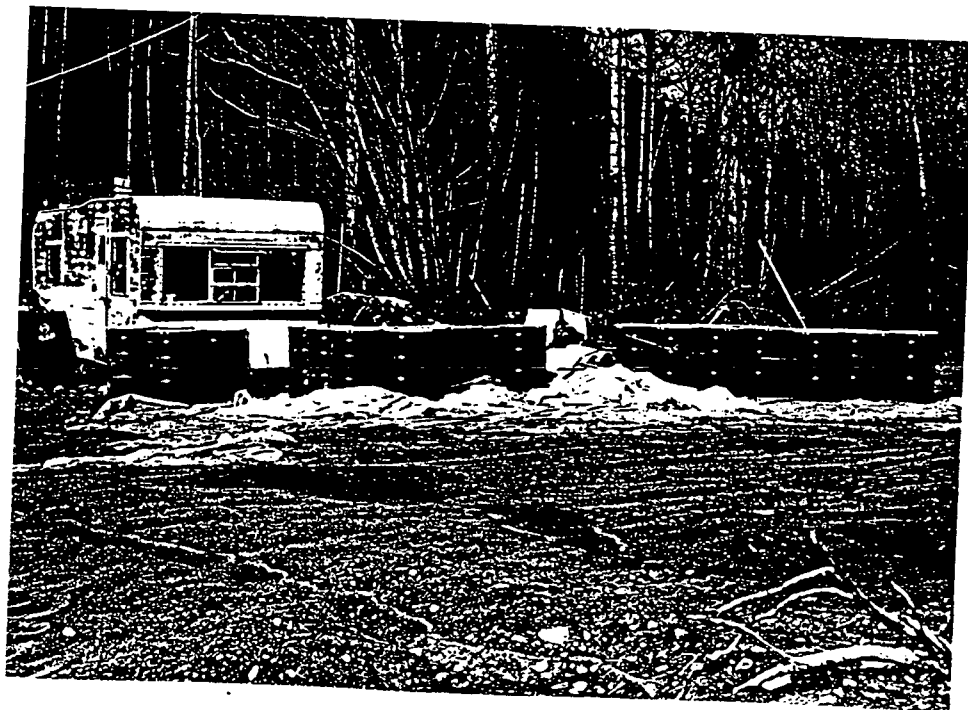
# ORIGINAL SITE CONDITIONS

OCT 1990





CONDITIONS AT END OF  
PHASE 1 FEB 1991



CONDITIONS TOWARDS END  
OF PHASE II AUG 1991

